WHAT IS CLAIMED IS:

1. A method for detecting an object in a monitored area, the method comprising the steps of:

illuminating the monitored area with a pattern;

capturing a live image of the monitored area, including the pattern; and

detecting an object in the monitored area when a change is detected in the pattern in the live image.

2. A method according to claim 1 wherein the detecting step detects an object in the monitored area when the change in the pattern exceeds a predetermined threshold.

3. A method according to claim 1 further comprising the steps of:

capturing a reference image of the monitored area, including the pattern; and

comparing the reference image and the live image to detect a change in the pattern in the live image.

4. A method according to claim 1 wherein the monitored area is illuminated with a static pattern.

5. A method according to claim 1 wherein the monitored area is illuminated with a dynamic pattern.

6. A method according to claim 3 wherein the reference image and the live image each have a number of mask windows, and wherein the comparing step compares selected mask windows of the reference image to selected mask windows of the live image.

7. A method according to claim 6 wherein the comparing step compares the selected mask windows of the reference image and the live image using one or more

comparing algorithms.

8. A method according to claim 7 wherein the comparing step compares two or more of the selected mask windows using different comparing algorithms.

9. A method according to claim 6 further comprising the step of performing a predefined action if the detecting step detects an object in one of the selected mask windows.

10. A method according to claim 9 wherein the predefined action is different depending on in which mask window an object is detected.

11. A method for detecting an object in a monitored area, the method comprising the steps of:

illuminating the monitored area with a first pattern;

creating moiré interference bands by imposing a second pattern shifted relative to the first pattern;

capturing a live image of the monitored area, including the moiré interference bands; and

detecting an object in the monitored area when a change is detected in the moiré interference bands in the live image.

12. A method according to claim 11 wherein the detecting step detects an object in the monitored area when the change in the moiré interference bands exceeds a predetermined threshold.

13. A method according to claim 11 further comprising the steps of:

capturing a reference image of the monitored area, including the moiré interference bands; and

comparing the reference image and the live image to detect a change in the moiré interference bands in the live image.

14. A method according to claim 13 wherein the comparing step includes subtracting at least part of the live image from at least part of the reference image or visa-versa.

15. A method according to claim 11 wherein the moiré interference bands are created by illuminating the monitored area with the second pattern.

16. A method according to claim 11 wherein the moiré interference bands are created by providing a mask or grating having the second pattern between the monitored area and an image capture device.

17. A method according to claim 11 wherein the moiré interference bands are created by digitally imposing the second pattern on the live image.

18. A method according to claim 11, wherein the reference image of the monitored area and the live image of the monitored area are captured with a sensor.

19. A method according to claim 18, wherein the first pattern is illuminated using light from a specified spectral region and the sensor is attuned to the spectral region.

20. A method according to claim 19, wherein the specified spectral region is near infrared.

21. A method according to claim 11, wherein the first pattern is illuminated using light from a first illumination source, and the second pattern is imposed using a second illumination source.

22. A method according to claim 11, wherein the method for comparing the interference bands of the reference image and the live image uses a Radon filter oriented perpendicular relative to the interference bands.

23. A method for detecting an object in a monitored area comprising:

illuminating the monitored area with a specified pattern having bright areas and dark areas, each with a brightness level;

capturing a plurality of reference image mask windows, each mask window covering at least part of the monitored area;

for each reference image mask window, calculating a difference "gref" between the brightness levels corresponding to the light areas in the mask window and the brightness levels corresponding to the dark areas in the mask window;

for each reference image mask window, capturing a corresponding live image mask window;

for each live image mask window, calculating a difference "glive" between the brightness levels corresponding to the light areas in the mask window and the brightness levels corresponding to the dark areas in the mask window; and

indicating that an object has been detected when, for any mask window, the calculated value "glive" is different from the corresponding calculated value "gref" by at least a specified threshold value.

24. A method according to claim 23 wherein the illuminating step includes illuminating the monitored area with a first specified pattern and a second specified pattern to create one or more moiré interference bands.